Northern Flows

Alaska's Drinking Water & Wastewater Program Newsletter
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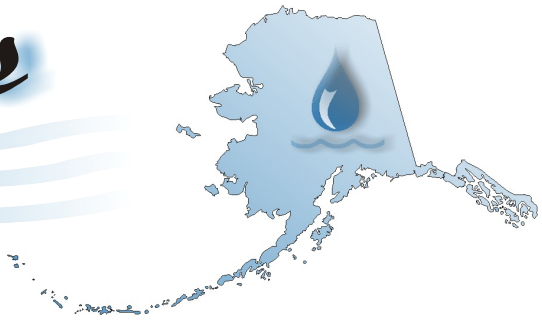

Message from the Manager

Fresh snow on the mountains signals an end to our all too short summer. The last of the pre-winter construction is drawing to a close and the planning for next year's activities has begun. The Alaska Department of Environmental Conservation (ADEC), Drinking Water and Wastewater (DW/WW) Program, has again had a very busy summer.

The DW/WW Program's first venture adopting a federal rule by reference was completed August 25, 2000, with the adoption of the Consumer Confidence Report Rule. Also included with this rule adoption were minor State Drinking Water Regulation revisions such as a reclassification of duplex dwellings from a public to a private drinking water system, which reduced the required separation distances. The Wastewater Treatment and Disposal Regulations (18AAC 72) and the Installer's Manual were updated to reflect those changes. The revised manual will be mailed to all current Certified Installers in the beginning of October (and will also be available at your local ADEC office).

The next phase of adoption of federal regulations by reference will include the Interim Enhanced Surface Water Treatment Rule and the Disinfectants/Disinfection By-Products Rule. We expect to public notice this regulation adoption process soon, to meet a December 16, 2000 deadline.

Our Source Water Assessment of public water systems (PWS) continues to proceed at a steady pace. Drinking Water Protection Program guidance manuals are currently being written for both Class "A" and "B" PWS's. These manuals will provide information to PWS owners, operators, and the public on protection measures to preserve the quality of Alaska's drinking water sources. Source water assessments for 11 PWS's (4 Class "A" and 7 Class "B") in the Girdwood Basin will be completed by early October 2000. These assessments will be available on the DW/WW Program's website: http://www.state.ak.us/dec/deh/water

The statewide Drinking Water Advisory Council is still in the development stage. We have started to establish the Council and letters will be sent to interested parties asking for participation. If you're interested in participating, contact me at 269-7647, or send me an E-mail. I appreciate the responses I've received so far that express interest in participating in this Council.

James R. Weise

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This Issue

Do you know how to maintain your water storage tank? See newsletter insert for helpful tips.

Proposed Wastewater Treatment and Disposal Regulation Changes

This fall, a work group consisting of private stakeholders from all across Alaska will evaluate proposed changes to the existing domestic wastewater regulations(18AAC72). Following is a summary of the significant issues that have been identified:

Nitrate impacts to groundwater from domestic wastewater systems.

An engineering analysis is currently required to determine the impact that an onsite wastewater system will have on nitrate levels in groundwater aquifers. The workgroup will review the analytical methods used and the current "trigger point" of 2,500 gallons per day.

Sand liner effectiveness for onsite systems.

Unless waived, current regulation requires that when the receiving soil has a percolation rate faster than 1 minute per inch, a 2' thick sand liner, meeting specific grain size requirements, must be placed under onsite soil absorption systems. The sand provides additional treatment and filtration prior to disposal to the groundwater. Because some of these systems have failed prematurely, the work group will review specifications for sand and the criteria that establish the need for a sand liner.

Individual package treatment plants.

The current approval criteria for individual on-site package treatment plants require that they: a) meet or exceed the 1983 National Sanitation Foundation (NSF) evaluation requirements for Class I plants, or b) must be capable of successfully treating wastewater for at least one year under expected conditions. Current rules do not require any periodic, on-going maintenance past the initial 2-year guarantee/warranty period. Because package plants are typically used when marginal subsurface conditions are present, proper operation and maintenance is critical to protecting public health and the environment. The work group will review whether ongoing maintenance is necessary and if so, how to implement this requirement.

"Several design references listed in regulation are no longer current."

Develop innovative/alternative technology approval process.

The workgroup will evaluate a proposal for approving innovative demonstration projects for new or unproven technology.

Evaluate increased application rates for soil absorption systems.

The current maximum wastewater application rate of 1.2 gallons/day/square foot for soil absorption will be evaluated for conditions that would allow this rate to be increased.

Improve Certified Installer program.

The program will be evaluated to determine what improvements can be made. Site evaluator training will be considered, particularly for remote areas where engineers are not available to perform percolation testing. The Installer's Manual will also be reviewed and updated.

Design/Review publication references.

Several design references listed in regulation are no longer current. References will be updated and new ones added.

Garage floor drain connections to onsite wastewater systems.

Current domestic wastewater regulations prohibit disposing of non-domestic wastewater in a domestic onsite system. However, floor drains located in a residential garage setting are not clearly addressed. A process for dealing with this very common occurrence needs to be established.

Allow separate standards for gray water and black water.

Separate minimum standards for the treatment and disposal of gray water and black water will be considered. Current regulations apply a single treatment standard, implying both constitute equal threats to public health and the environment.

Utilidors and pipe separation distances.

18 AAC 72.020(h) allows the use of utilidors after a waiver is approved and a list of prescriptive requirements is met. The review will consider eliminating the need for a formal waiver if all the listed requirements are met. The same condition applies to the separation distance between underground sewer and water pipes.

License septic tank pumpers.

Current regulations do not require septic tank pumping companies -- that don't operate their own disposal site -- to keep records. A proposal is being considered to license all septic-pumping companies and require them to keep records of their pumping and disposal actions.

What is a Maximum Contaminant Level?

In 1974, Congress passed the Safe Drinking Water Act (SDWA) which gave the US Environmental Protection Agency (EPA) the authority to set drinking water standards for public water systems. Drinking water standards are used to set and control the level of microbial and chemical contaminants in drinking water. The Maximum Contaminant Level (MCL) and Treatment Techniques are designed to ensure the safety and quality of drinking water by limiting the amount of contaminants allowed in drinking water.

"The most common cause for Total Coliform MCL violations is sampling error."

In Alaska, the most common MCL violation is for Total Coliform bacteria. Approximately 35 Alaskan systems exceeded the MCL for Total Coliform bacteria in 1999. The most common cause for Total Coliform MCL violations is sampling error. However, there are cases in which the contamination is due to a breakdown in the treatment process or inadequate source water protection. The next most common MCL violations are for Nitrates (from wastewater) and Benzene (from fuel). Most of these MCL violations occur because of inadequate source water protection.

MCL violations can be greatly reduced by using multiple barriers to protect drinking water. These multiple barriers include:

- location and assessment of possible contaminant sources,
- protecting source water from contaminants,
- making sure that water is treated by qualified operators,
- ensuring the integrity of the distribution system, and
- keeping the public informed about the quality of their drinking water.

By following this approach and working closely with ADEC, public water systems can ensure the quality and safety of their drinking water.

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CCR Progress

As of September 14, 2000, 58% of the 1998 Consumer Confidence Reports have been distributed. Only 40% of the Community Water Systems have distributed the 1999 report due July 1, 2000. If you need help with yours, call Steve Shreiber of NRWA at 694-6792 or Susan Randlett at 269-3075.

Compliance/ Enforcement Strategy

Many water systems fail to meet all the requirements of the drinking water regulations. With a limited staff, how do we handle enforcement? The answer to this question is the topic of a revised Compliance/Enforcement Strategy submitted to EPA June 2000.

"Preventing violations, through education, is the most cost-effective enforcement available."

Preventing violations, through education, is the most cost-effective enforcement available. But some times, more is needed.

We always act first on violations that are of public health significance -- exceeding MCL's, high nitrates, bacteriological contamination, low chlorine, and other situations that may put public health at risk. Once violations of public health significance have been resolved, we address the less urgent ones in one of two ways. Sometimes the entire program may target a particular type of violation (e.g., missing nitrate samples for the previous year). Other times, a water system that has consistently had a variety of violations may be targeted for enforcement. Either way, we are always considering the risk to public health.

Based on the urgency of the violation, staff response will vary. Usually, we first try to negotiate formal agreements such as Compliance Orders. Unfortunately, sometimes that's not enough and civil court action may be taken.

Call Susan Randlett, Compliance/Enforcement Coordinator, at 269-3075, if you have any questions.

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Important Information

For Water Operators and Owners

Northern Flows

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